

**Enequist Chemical Co., Inc.**  
**Draft Upland Site Summary**

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**ENEQUIST CHEMICAL CO., INC. (DAR SITE ID #8)**

Address: 100 Varick Avenue, Brooklyn, Kings County, New York 11207  
Tax Lot Parcel(s): Brooklyn Block 2976, Lot 60  
Latitude: 40.709584  
Longitude: -73.927344  
Regulatory Programs/  
Numbers/Codes: CBS No. 2-000027, PBS No. 2-233072, USEPA ID No.  
NYD002028827, NYSDEC Spill No. 9202219 and 0502445  
Analytical Data Status: ☐ Electronic Data Available ☒ Hardcopies only  
☐ No Data Available

**1 SUMMARY OF CONSTITUENTS OF POTENTIAL CONCERN (COPCs) TRANSPORT  
PATHWAYS TO THE CREEK**

The current understanding of the transport mechanisms of COPCs from the upland portions of the Enequist Chemical Company, Inc. site (site) to Newtown Creek is summarized in this section and Table 1, and supported in the following sections.

**Overland Transport**

The site is located approximately 741 feet from Newtown Creek and associated waterways. This is not a complete historical or current pathway.

**Bank Erosion**

The site is not adjacent to Newtown Creek or associated waterways. This is not a complete historical or current pathway.

**Groundwater**

Groundwater quality information for this site was not identified in documents available for review. The site is located approximately 741 feet from Newtown Creek and associated waterways. In 2005, spill records indicate paint and No. 2 fuel oil spilled to groundwater at the site. There is insufficient evidence to make a historical or current pathway determination.

### Overwater Activities

This site is not adjacent to Newtown Creek or associated waterways and has no overwater activities. This is not a complete historical or current pathway.

### Stormwater/Wastewater Systems

Information regarding on-site stormwater infrastructure and management was not identified in files available for review. This site is within the Newtown Creek Water Pollution Control Plant (WPCP) sewershed. Wastewater and stormwater from the site flow into separate municipal sewer systems. Wastewater is conveyed to the WPCP for treatment prior to discharge. Stormwater is conveyed to English Kills, a tributary of Newtown Creek, and discharged at Outfalls NCB-629 and ST-60 (NYCDEP 2007b). Although sanitary discharges from the site flow into a separate local municipal system, it is likely that the separate local system flows into a larger combined system prior to reaching the treatment plant. When the combined flows exceed the system's capacity, untreated combined sewer overflows (CSOs) are discharged to Newtown Creek. There is insufficient evidence to make a historical or current pathway determination for direct discharge of stormwater and wastewater, and sewer/CSO.

### Air Releases

Information regarding site air discharges was not identified in documents available for review. There is insufficient evidence to make a historical or current pathway determination.

## 2 PROJECT STATUS

No available documents containing environmental investigations were identified for this site. A New York State Department of Environmental Conservation (NYSDEC) Site Code was not found for this site.

## 3 SITE OWNERSHIP HISTORY

Respondent Member:

☐ Yes ☒ No

Owners	Years	Occupants	Types of Operations
	1930s – Unknown	Marko Storage Battery Corporation	Unknown
	1959 – 2006?	Enequist Chemical Company	Distribution and sales of industrial chemicals Industrial chemical storage
Lena Marko	Unknown – 1973		
Paul Marko, Junior	1972 – 1974		
Paul Marko III	1974 – 1979		
Enequist Chemical Company	1979 – 1991		
RJR Realty Group, Ltd.	1991 – 2006		
100 Varick, LLC	2006 – present		
	Unknown – present	Montebello Food Corporation	Food service distribution

#### 4 PROPERTY DESCRIPTION

The site occupies approximately 0.9 acres along Varick Avenue in Brooklyn, New York. The site is located 0.2 miles east of the terminus of English Kills. The site is between 10 and 15 feet above mean sea level and slopes towards the west. The entire site is covered by a large building along Varick Avenue and Randolph Street on the south and west sides, with a railroad spur and siding located along the northern edge of the site. A parking area for trucks is located adjacent to the eastern side of the site.

The site and the surrounding area is zoned manufacturing. The site is located close to two other environmentally regulated sites; Waste Management of New York and The Print House/Architectural Coatings, Inc. (see Figure 1).

#### 5 CURRENT SITE USE

The site is currently occupied by Montebello Food Corp., a food service distributor (Google Maps 2012; Montebello Food Corp. 2012).

## 6 SITE USE HISTORY

Marko Storage Battery Corporation was the first known business to occupy the site, appearing on maps as early as 1933 (Sanborn 1933). Marko's business operations are unknown.

In 1959, the Enequist Chemical Company was a distributor and seller of industrial chemicals. Enequist used/distributed soda ash, caustic soda, TSP, copper chloride, as well phosphoric, nitric, muriatic, and sulphuric acid (Hazen and Sawyer 1959). By the early 1980s, Enequist's operations included the blending of acids and other chemicals. Enequist also received acids in bulk and packaged them. Tanks for bulk acid storage and for acid blending were located in the company yard (RCRA 1981). In the mid-1980s, an unspecified portion of stored acids consisted of spent ammonia solutions from etching printed circuits by Enequist customers (NYSDEC 1985). Enequist sold the site to 100 Varick, LLC in 2006 (RJR Realty Group, Ltd. 2006).

## 7 CURRENT AND HISTORICAL AREAS OF CONCERN AND COPCS

The current understanding of the historical and current potential upland and overwater areas of concern at the site is summarized in Table 1. The following sections provide brief discussion of the potential sources and COPCs at the site requiring additional discussion.

### 7.1 Uplands

No information about specific areas of concern on the site was found in historical documents reviewed. Enequist Chemical Co., took in chemicals in bulk, repackaged and distributed them (RCRA 1982). Areas of concern associated with this site include outdoor areas of chemical storage and handling, the loading and unloading areas, tanks used to store and blend chemicals, and discharges to the public sewers.

Enequist transported and stored acids consisting of spent ammonia solutions from etching printed circuits by Enequist customers. Other stored substances included a variety of alcohols (methyl, denatured, isopropyl, and butyl) along with toluene, xylene, methyl ethyl ketone, acetic acid, naphtha solvent, mineral spirits, kerosene, glycerine, solid chromic acid, hydrofluoric acid, 85 percent phosphoric acid, sodium cyanide, potassium cyanide, copper

cyanide, zinc cyanide, dry cyanide mixture, dry chromic acid mixture, hydrogen peroxide, sodium chloride, potassium permanganate, and silver nitrate stored in drums, hydrochloric acid, 66 degree sulfuric acid and 67 percent nitric acid stored in tanks, and sodium nitrate stored in bags (NYSDEC 1985).

In 1989, Enequist had five aboveground storage tanks (ASTs) on the site (New York City Department of Environmental Protection [NYCDEP] 2007). The site also had two underground storage tanks (USTs) with a 550-gallon capacity each for unleaded gasoline (NYCDEP 2007a; EDR 2010). The following table summarizes the tanks on the site:

Tank ID	Capacity (gallons)	Location	Material	Notes
<b>PBS No. 2-233072</b>				
001	3,000	AST	Nitric acid	Installed July 1961; closed August 1992
003	3,000	AST	Hydrochloric acid	Installed July 1961; closed August 1992
005	6,000	AST	Sulfuric acid	Installed October 1979, in service
006	2,500	AST	Sodium hydroxide	Installed November 1988, in service
007	1,500	AST	Sodium hydroxide	Installed November 1988, in service
<b>CBS No. 2-000027</b>				
001	550	UST	Unleaded gasoline	Installed 08/01/97, in service
002	550	UST	Unleaded gasoline	Install date not reported, in service

Notes:

AST – aboveground storage tank

CBS – chemical bulk storage

PBS – petroleum bulk storage

UST – underground storage tank

Beginning in the 1980s, the site began reclaiming drums containing spent cyanide solutions. The drums were cleaned by mixing remaining contents with sodium hypochlorite or peroxide and discharging it in the public sewers (RCRA 1981, 1982). This site has been on the list of U.S. Environmental Protection Agency (USEPA)-regulated facilities under the Resource Conservation and Recovery Act (RCRA; USEPA ID No. NYD002028827) and was classified as a large quantity generator (LQG) in 2007 (EDR 2010). The site was previously classified as a LQG in 1980, a non-generator in 1999, and a conditionally exempt small quantity generator (CESQG) in 2006. Manifested hazardous wastes shipped off site included

waste codes D001 (ignitable waste), D002 (corrosive waste), D005 (barium), D008 (lead), and F002 (spent halogenated solvents) wastes (EDR 2010).

According to 1981 and 1982 RCRA inspections (RCRA 1981, 1982), “empty cyanide drums” were rinsed and the resulting wastewater was mixed with sodium hypochlorite or peroxide and discharged to the “public sewer.” Greenish water was also observed during the August 1981 inspection, flowing across broken concrete in the acid storage tank and blending yard and collecting in a hole (RCRA 1981).

COPCs associated with the site include acids; metals, including lead, copper, zinc, chromium, and silver; VOCs; including toluene, xylene, and methyl ethyl ketone; and various cyanide compounds (NYSDEC 1985).

## 7.2 Overwater Activities

This site is not adjacent to Newtown Creek or associated waterways.

## 7.3 Spills

Two documented spills were identified as occurring at the site and are summarized as follows:

NYSDEC Spill No.	Spill Date	Close Date	Material Spilled	Remarks
9202219	05/22/92	11/23/94	Unknown petroleum	Unknown amount spilled to soil during housekeeping activities (NYSDEC 2012)
0502445	05/31/05	05/31/06	Paint	Unknown amount spilled to groundwater due to tank failure (NYSDEC 2012)
			No. 2 fuel oil	

Note:

NYSDEC – New York State Department of Environmental Conservation

## 8 PHYSICAL SITE SETTING

No site-specific geologic or hydrogeologic information is available for the site. The following information is based on regional conditions in the Brooklyn/Queens area.

In general, the geologic setting of Newtown Creek area consists of Quaternary glacial deposits overlying Paleozoic gneiss and schist bedrock (Misut and Monti 1999). The contact between the glacial deposits and bedrock slopes rather steeply to the southeast, ranging in depth from less than 50 feet below ground surface (bgs) near the mouth of Newtown Creek to more than 200 feet bgs at the eastern portions of the historical data review area. The near surface geology is of most interest relative to potential groundwater transport pathways from upland sites to the creek. In most areas, a heterogeneous anthropogenic fill unit of variable thickness (generally less than 20 feet thick) immediately underlies the surface. Beneath the fill in most areas are complex upper glacial deposits of Late Pleistocene age, consisting of ablation till, outwash, and glaciolacustrine sediments. In some areas near Newtown Creek, a shell-bearing gray silt unit is present beneath the fill; this silt may represent post-glacial intertidal sediments deposited in wetlands adjacent to the creek prior to filling in the 1800s. An extensive sequence of regionally significant glacial units underlies the upper glacial deposits in areas where bedrock is deeper (Misut and Monti 1999).

The surface aquifer is typically contained within the upper glacial deposits and the lower portion of the anthropogenic fill layer. Depth to groundwater varies from a few feet to about 30 feet bgs in the historical data review area. Shallow groundwater generally flows towards and discharges to Newtown Creek (Misut and Monti 1999).

## 9 NATURE AND EXTENT (CURRENT UNDERSTANDING OF ENVIRONMENTAL CONDITIONS)

### 9.1 Soil

Soil Investigations

☐ Yes ☒ No

Bank Samples

☐ Yes ☐ No ☒ Not Applicable

Soil-Vapor Investigations

☐ Yes ☒ No

Information related to soil investigations was not found in reviewed documents.

## 9.2 Groundwater

Groundwater Investigations ☐ Yes ☒ No  
 NAPL Presence (Historical and Current) ☐ Yes ☒ No  
 Dissolved COPC Plumes ☐ Yes ☒ No  
 Visual Seep Sample Data ☐ Yes ☐ No ☒ Not Applicable

Information related to groundwater investigations was not found in reviewed documents.

## 9.3 Surface Water

Surface Water Investigation ☐ Yes ☒ No  
 SPDES Permit (Current or Past) ☐ Yes ☒ No  
 Industrial Wastewater Discharge Permit (Current or Past) ☐ Yes ☒ No  
 Stormwater Data ☐ Yes ☒ No  
 Catch Basin Solids Data ☐ Yes ☒ No  
 Wastewater Data ☐ Yes ☒ No

### 9.3.1 Stormwater and Wastewater Systems

Information regarding on-site stormwater infrastructure and management was not identified in files available for review. This site is within the Newtown Creek WPCP sewershed. Wastewater and stormwater from the site flow into separate municipal sewer systems. Wastewater is conveyed to the WPCP for treatment prior to discharge. Stormwater is conveyed to English Kills, a tributary of Newtown Creek, and discharged at Outfalls NCB-629 and ST-60 (NYCDEP 2007b). Although sanitary discharges from the site flow into a separate local municipal system, it is likely that the separate local system flows into a larger combined system prior to reaching the treatment plant. When the combined flows exceed the system's capacity, untreated CSOs are discharged to Newtown Creek.

## 9.4 Sediment

Creek Sediment Data ☐ Yes ☐ No ☒ Not Applicable

Sediment investigation information was not found in reviewed documents.



## 9.5 Air

Air Permit

☐ Yes ☒ No

Air Data

☐ Yes ☒ No

Information related to air emissions was not found in reviewed documents.

## 10 REMEDIATION HISTORY (INTERIM REMEDIAL MEASURES AND OTHER CLEANUPS)

Information related to remediation was not found in reviewed documents.

## 11 BIBLIOGRAPHY/INFORMATION SOURCES

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RCRA, 1982. *RCRA Inspection Report*. October 15, 1982.

RJR Realty Group, Ltd., 2006. Indenture to 100 Varick LLC. July 31, 2006.

Sanborn (Sanborn Map Company), 1933. *Insurance Maps of Borough of Brooklyn, City of New York*. 1933. Volume 9: Sheet 61. 1933.

## 12 ATTACHMENTS

### Figures

Figure 1 Site Vicinity Map: Enequist Chemical Co., Inc.

### Tables

Table 1 Potential Areas of Concern and Transport Pathways Assessment

**Table 1**  
**Potential Areas of Concern and Transport Pathways Assessment – Enequist Chemical Co., Inc.**

Potential Areas of Concern	Media Impacted					COPCs															Potential Complete Pathway							
Description of Areas of Concern	Surface Soil	Subsurface Soil	Groundwater	Catch Basin Solids	Creek Sediment	TPH			VOCs			SVOCs	PAHs	Phthalates	Phenolics	Metals	PCBs	Herbicides and Pesticides	Dioxins/Furans	Overland Transport	Groundwater	Direct Discharge – Overwater	Direct Discharge – Storm/Wastewater	Discharge to Sewer/CSO	Bank Erosion	Air Releases		
						Gasoline-Range	Diesel – Range	Heavier – Range	Petroleum Related (e.g., BTEX)	VOCs	Chlorinated VOCs																	
Equipment and products used in former industrial chemical distribution (including outdoor chemical storage and handling areas, and loading and unloading areas)	?	?	?	?	?	?	?	?	?	√	?	?	?	?	?	√	?	?	?	--	?	--	√	√	--	?		
Spills	√	?	√	?	?	?	√	?	√	√	?	√	√	?	√	√	?	?	?	--	?	--	?	?	--	?		
ASTs	?	?	?	?	?	?	?	?	?	√	?	?	?	?	?	√	?	?	?	--	?	--	?	?	--	?		
USTs	?	?	?	?	?	√	?	?	√	√	?	?	?	?	?	?	?	?	?	--	?	--	?	?	--	?		
Equipment and products used in food service distribution	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	--	?	--	?	?	--	?		

## Notes:

√ – COPCs are/were present in areas of concern having a current or historical pathway that is determined to be complete or potentially complete.

? – There is not enough information to determine if COPC is/was present in area of concern or if pathway is complete.

-- – Current or historical pathway has been investigated and shown to be not present or incomplete.

BTEX – benzene, toluene, ethylbenzene, and xylenes

COPC – constituents of potential concern

CSO – combined sewer overflows

PAH – polycyclic aromatic hydrocarbons

PCB – polychlorinated biphenyl  
SVOC – semi-volatile organic compounds  
TPH – total petroleum hydrocarbons  
UST – underground storage tank  
VOC – volatile organic compounds

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⦿ USEPA Sample Locations (Surface and Subsurface)

— Shoreline (NYC Dept. of Information Technology, 2006)

— USGS Nat'l Elev. Dataset 5-foot Contours

▭ Selected Site Property Boundary

▭ Neighboring Site Property Boundary

**Outfall Class**

- Direct Discharge
- General
- Highway Drain
- Major Stormwater Outfall
- SPDES
- Storm Drain

**NOTES:**

1. Outfall Labeling: BB: Bowery Bay; NC(B/Q): Newtown Creek, Brooklyn/Queens; ST: Stormwater.

2. Outfall locations are preliminary, compiled, estimated data based on New York City Department of Environmental Protection (NYCDEP) maps and tabulated data and other resources. Many outfall locations were taken from the New York City Shoreline Survey Program: Newtown Creek Water Pollution Control Plant Drainage Area, NYCDEP, March 31, 2003. Other locations were taken from an excerpt from a similar report from 2008 (the complete report was not included in files available for review). Finally, some outfall locations were inherited from previous Anchor QEA and Newtown Creek Project work. Latitudinal and longitudinal data provided in the 2003 and 2008 NYCDEP reports were rounded to the nearest second. This resulted in potential outfall location discrepancies of up to approximately 200 feet. All outfall locations are currently under field verification.

3. Aerial Photos: New York State Division of Homeland Security and Emergency Services, 2010.

4. Site Boundaries are based on New York City parcels data.

5. Coarse topographic contours are derived from U.S. Geological Survey 10-meter data.

0 100 200 300 400

Feet



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**Figure 1**  
Site Vicinity Map  
Draft Upland Site Summary: Enequist Chemical Co. Inc.  
Newtown Creek RI/FS